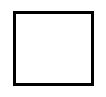
**Shapes and Sums: A Mini POW** Name:

**Part 1:** Find the value of each shape so that they will add up to give you the specified sums in each row and each column. Then, explain the following:

* Which shape did you choose to figure out first, and why?
* Provide **VERY SPECIFIC DETAILS** about how you figured out the values of the shapes.

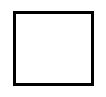
1.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  | Row sum = 46 |
|  |  |  | Row sum = 27 |
|  |  |  | Row sum = 32 |
|  |  |  | Row sum = 37 |
| Column sum = 55 | Column sum = 46 | Column sum = 41 |  |

 = \_\_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_\_\_  = \_\_\_\_\_\_\_\_\_

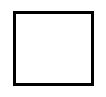
2.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  | Row sum = 46 |
|  |  |  | Row sum = 18 |
|  |  |  | Row sum = 40 |
|  |  |  | Row sum = 54 |
| Column sum = 60 | Column sum = 52 | Column sum = 46 |  |

 = \_\_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_\_\_  = \_\_\_\_\_\_\_\_\_

3.

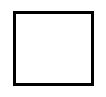
|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  | Row sum = 56 |
|  |  |  | Row sum = 47 |
|  |  |  | Row sum = 55 |
|  |  |  | Row sum = 64 |
| Column sum = 72 | Column sum = 71 | Column sum = 79 |  |

 = \_\_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_\_\_  = \_\_\_\_\_\_\_\_\_

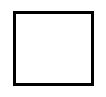
**Part 2**: Analysis

1.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  | Row sum = 38 |
|  |  |  | Row sum = 50 |
|  |  |  | Row sum = 48 |
|  |  |  | Row sum = 43 |
| Column sum = 53 | Column sum = 63 | Column sum = 63 |  |

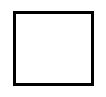
 = \_\_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_\_\_  = \_\_\_\_\_\_\_\_\_

Find and explain the values of each of the shapes. Again: provide many details.

Rodriguez thinks that  has a value of 10. Explain why that is impossible by comparing the sums from the **top row** and the **leftmost column**.

2.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  | Row sum = 42 |
|  |  |  | Row sum = 18 |
|  |  |  | Row sum = 27 |
|  |  |  | Row sum = 30 |
| Column sum = 50 | Column sum = 32 | Column sum = 35 |  |

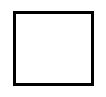
 = \_\_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_\_\_  = \_\_\_\_\_\_\_\_\_

By looking at the **leftmost column**, what conclusion can you draw about the sum of and ? How does that help you figure out the rest of the puzzle?

Now: find the rest of the shapes. Explain yourself in very specific detail!

3. Find the value of each shape:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  | Row sum = 78 |
|  |  |  | Row sum = 65 |
|  |  |  | Row sum = 68 |
|  |  |  | Row sum = 71 |
| Column sum = 109 | Column sum = 80 | Column sum = 93 |  |

 = \_\_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_\_\_  = \_\_\_\_\_\_\_\_\_